

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 28, 2005, 16:54:57 ; Search time 40 Seconds
(without alignments)
626.705 Million cell updates/sec

Title: US-10-048-071-28

Perfect score: 1863

Sequence: 1 MIQFSINRTLFHALNTTKRAISSTKNAIPILSSIKIEVTSTGVTLTGSGQISIENTPIV 378

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 478139 seqs, 66318000 residues

Total number of hits satisfying chosen parameters: 478139

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Issued Patents AA:*

- 1: /cgm2_6/ptodata/1/iaa/5A_COMB.pep:*
- 2: /cgm2_6/ptodata/1/iaa/5B_COMB.pep:*
- 3: /cgm2_6/ptodata/1/iaa/6A_COMB.pep:*
- 4: /cgm2_6/ptodata/1/iaa/6B_COMB.pep:*
- 5: /cgm2_6/ptodata/1/iaa/PTCTUS_COMB.pep:*
- 6: /cgm2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1389	74.6	378	4	US-09-583-110-4405
2	863.5	46.3	384	4	US-09-107-532A-4556
3	748.5	40.2	385	3	US-09-134-001C-5166
4	431	23.1	181	4	US-09-134-000C-5039
5	350.5	18.8	368	4	US-09-252-991A-18904
6	315	16.9	383	4	US-09-328-352-5969
7	313	16.8	374	4	US-09-489-039A-10579
8	307	15.5	375	4	US-09-543-681A-7400
9	249.5	13.4	375	4	US-09-818-780-23
10	232	12.5	303	4	US-09-198-452A-357
11	131.5	7.1	141	4	US-09-134-000C-5040
12	117.5	6.3	977	4	US-09-248-796A-15579
13	115.5	6.2	800	3	US-08-776-265-3
14	115.5	6.2	800	4	US-09-398-184-3
15	114.5	6.1	823	4	US-09-248-796A-16699
16	113.5	6.1	922	4	US-09-883-134-9
17	112.5	6.0	470	4	US-09-248-796A-23131
18	112.5	6.0	619	3	US-09-066-046-2
19	109.5	5.9	1753	4	US-09-248-796A-19154
20	109	5.9	532	4	US-09-710-279-546
21	107.5	5.8	569	4	US-09-248-796A-16697
22	107	5.7	563	3	US-09-134-001C-3172
23	106.5	5.7	1155	4	US-09-543-681A-6286
24	104.5	5.6	1726	4	US-09-700-227-2
25	103.5	5.6	564	4	US-09-107-532A-5248
26	103.5	5.6	920	4	US-09-463-402-6
27	103.5	5.6	921	4	US-09-889-572-4

Printed for C7NR

28	103	5.5	1233	4	US-09-134-000C-4971	Sequence 4971, Ap
29	103	5.5	1416	4	US-09-071-035-404	Sequence 404, App
30	103	5.5	1448	4	US-09-071-035-402	Sequence 402, App
31	102.5	5.5	395	3	US-09-134-001C-5119	Sequence 5119, A
32	102.5	5.5	461	4	US-09-248-796A-23039	Sequence 23039, A
33	102	5.5	2366	1	US-08-480-604A-10	Sequence 10, Appl
34	102	5.5	2366	2	US-08-405-496A-10	Sequence 10, Appl
35	102	5.5	2366	3	US-08-913-136-10	Sequence 10, Appl
36	102	5.5	2366	3	US-08-957-310-10	Sequence 10, Appl
37	102	5.5	2366	4	US-10-011-366-10	Sequence 10, Appl
38	102	5.5	2366	4	US-09-084-517-10	Sequence 10, Appl
39	101.5	5.4	960	4	US-09-538-092-326	Sequence 326, App
40	101	5.4	385	4	US-09-543-681A-4674	Sequence 4674, Ap
41	100	5.4	666	4	US-09-134-000C-6159	Sequence 6159, Ap
42	99.5	5.3	380	4	US-09-248-796A-15552	Sequence 15552, A
43	99.5	5.3	512	3	US-08-856-253-6	Sequence 2586, Ap
44	99.5	5.3	611	4	US-09-710-279-2586	Sequence 2586, Ap
45	99.5	5.3	910	4	US-09-134-000C-4677	Sequence 4677, Ap

ALIGNMENTS

RESULT 1

US-09-583-110-4405

; Sequence 4405, Application US/09583110

; Patent No. 6699703

; GENERAL INFORMATION:

; APPLICANT: Lynn Doucette-Stamm et al.

; TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus

; FILE REFERENCE: PATH00-07A

; CURRENT FILING DATE: 2000-05-26

; PRIOR FILING DATE: 1998-06-30

; PRIOR FILING DATE: 1998-05-12

; PRIOR FILING DATE: 1997-07-02

; NUMBER OF SEQ ID NOS: 5322

; SEQ ID NO 4405

; LENGTH: 378

; TYPE: PRT

; ORGANISM: Streptococcus pneumoniae

; US-09-583-110-4405

Query Match 74.6%; Score 1389; DB 4; Length 378;
Best Local Similarity 72.2%; Pred. No. 6.7e-125;
Matches 273; Conservative 50; Mismatches 55; Indels 0; Gaps 0;

QY	1	MIQFSINRTLFHALNTTKRAISSTKNAIPILSSIKIEVTSTGVTLTGSGQISIENTPIV	60
DB	1	MHFSINKNLFQALNTTKRAISSKNAIPILSTVKIDVTNEGILGSGQISIENTFISQ	60
QY	61	SNENAGLITPGAILLEASPPINISLPDISINVEHQVLTGSKSITLKGKV	120
DB	61	KNEADGLITSLGSLLEASPPINVSLLPDLDFKXIEQNIQVLTGSKSITLKGKDS	120
QY	121	DOYPLQVSTENPILATKLLKSIATAPAAISQESRPILTGVHIVLSNKHDKKAVAT	180
DB	121	EQYPIQISASTPILLETLLKLLKLIETAFAPAAISQESRPILTGVHIVLSNKHDKKAVAT	180
QY	181	DSHRMSQRLITLDTNSADLVVLPKSLREFSAVFTDDIETVEVFPSPQILFRSEHSIF	240
DB	181	DSHRLSQKLLTEKNSSDDFVVIPSRLEFSAVFTDDIETVEIFPANNQILFRSEHSIF	240
QY	241	YTRLEGNYPOTDRLLMTFETEVVNTQSLRHAMERAPLISNATONGTVKLEITONHIS	300
DB	241	YTRLEGNYPOTDRLLPITDFNTITFNVNLRQSMERARLLSSATONGTVKLEIKDGVVS	300
QY	301	AHVNSPEVKUNEDDIVSQSGSDITISNPPLYLSLKAIKSETVKIHFSPVPTLT	360
DB	301	YTRLEGNYPOTDRLLPITDFNTITFNVNLRQSMERARLLSSATONGTVKLEIKDGVVS	360

Qy	181	DSHRMSQRLLTDLNTSADLMMVLP	PSKSLRERFS	AVFTDDIETVEVFPSPQILFRSEHISF	244	
Db	187	DSHRLSRQVFPVQAADHFDIVIPG	KSLLTWEBSL	TLTWEBSLIVS	246	
Qy	241	YTRLLEGNYPDTRLMTETETEVFN	TQSLRHAMERAF	LISNATONGTVKLEITQNHIS	300	
Db	247	YSRLLEGNYPDTRLIPSSFNTEV	FSPFLAIAERAS	LUSHGRNNIVRLSRPDVAV	306	
Qy	301	AHVNSPEVGKVNEDLDIVSOGS	DLTISFNPTYLISL	KAIKSETVKIHFSPVRPFTLT	360	
Db	307	LYGNSPEIGKVESLSYTASSG	DPDISFPNDYKAA	LRAPGDSIKVKPISAIRPFTLE	366	
Qy	361	PGDEESFIQLITPVRTN	378			
Db	367	PTEDGVQFIQLITPVRTN	384			
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US-09-134-001C-5166						
; Sequence 5166, Application US/09134001C						
; Patent No. 6380370						
; GENERAL INFORMATION:						
; APPLICANT: Lynn Doucette-Stamm et al						
; TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPH						
; TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS						
; FILE REFERENCE: GTC-007						
; CURRENT APPLICATION NUMBER: US/09/134,001C						
; CURRENT FILING DATE: 1998-08-13						
; PRIOR APPLICATION NUMBER: US 60/064,964						
; PRIOR FILING DATE: 1997-11-08						
; PRIOR APPLICATION NUMBER: US 60/055,779						
; PRIOR FILING DATE: 1997-08-14						
; NUMBER OF SEQ ID NOS: 5674						
; SEQ ID NO 5166						
; LENGTH: 385						
; TYPE: PRT						
; ORGANISM: Staphylococcus epidermidis						
US-09-134-001C-5166						
Query Match 40.2%; Score 748.5; DB 3; Length 385;						
Best Local Similarity 40.5%; Pred. No. 2.4e-63;						
Matches 153; Conservative 86; Mismatches 136; Indels 3; Gaps 3						
Qy	1	MIOFSNRTLFIHALNTKKAISTKNA	PILSSIKINVTSGVLTGSGNGOIS	ENTIPV	60	
Db	9	MMEFTIKRDYFNLQNDTLKAISPR	TLPILTGIKIDAKENEVILTSGDS	SEISIEITIPK	68	
Qy	61	SNENAGLL-ITS	GCAILLEAFINIISSLPDISIN	VKETIHOQVVLTSKSEITLKGKD	119	
Db	69	QVDGSEIVEITETG	SVVLPGRFVDIIKKLPGEVKLST	NEQFOTLITSGHSEFNLSGLD	128	
Qy	120	VDOYPRLOEVSTENPILTKL	KSIIAETAFASLOESRPI	LGTGVHIVLSNHNKDFKAVA	179	
Db	129	PDQYPLLPEVSRDDAQLSV	KVLKXIIAQTNFAVSTSETP	LVLTGVNWLIODN-ELICTA	187	
Qy	180	TDSHRMSQRLLTDLNTSADL	MMVLP	PSKSLRERFS	AVFTDDIETVEVFPSPQILFRSEHIS	239
Db	188	TDSHRLAVRKLQLEDESEN	KNWIIIPGKALSELN	KIMSDSDEDI	DIFPASNQVLFRVGNIN	247
Qy	240	FYTRLLEGNYPDTRLMTET	EFTEVEVENTQSLRHAMERAF	LISNATONGTVKLEITQNH	299	
Db	248	FYSRLLEGHYPDTRLFPEN	YIEIKGINNGDGYHAIDRA	SLAREGGNNVILKSTGNSLV	307	
Qy	300	SAHVNSPEVGKVNEDLDIV	SOGS	DLTISFNPTYLISL	KAIKSETVKIHFSPVRPFTLT	359
Db	308	ELSSSTPEIGTVKSEY	NANDVEG	NLKLISFNSKYMMDAL	KAIDNDEVEVEFGTCKPFTL	367
Qy	360	TPGDSEESFIQLITPVRT	377			
Db	368	KPKD-DDSVTOLILPRT	384			

Printed for C7M12

GenCore version 5.1.6
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OM nucleic - nucleic search, using sw model

Run on: January 31, 2005, 10:52:07 ; Search time 85 Seconds
(without alignments)
9482.760 Million cell updates/sec

Title: US-10-048-071-27
Perfect score: 1134
Sequence: 1 atgattcaatttcaataa.....ttaccaccagtcagcaaac 1134

Scoring table: IDENTITY NUC
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued Patents NA:
1: /cgn2_6/prodata/1/ina/5A COMB.seq.*
2: /cgn2_6/prodata/1/ina/5B COMB.seq.*
3: /cgn2_6/prodata/1/ina/6A COMB.seq.*
4: /cgn2_6/prodata/1/ina/6B COMB.seq.*
5: /cgn2_6/prodata/1/ina/PCTUS COMB.seq.*
6: /cgn2_6/prodata/1/ina/backfileseq.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	849	74.9	3200	3	US-09-381-862-2
2	608.2	53.6	1137	4	US-09-583-110-1744
3	608.2	53.6	2138	4	US-08-961-527-20
4	317	28.0	1155	4	US-09-107-532A-902
5	247.4	21.8	1158	3	US-09-134-001C-2329
6	236.2	20.8	2347	4	US-08-956-171E-153
7	236.2	20.8	2347	4	US-08-781-986A-153
8	159.6	14.1	546	4	US-09-134-000C-1634
9	55.2	5.2	640681	4	US-09-790-988-1
10	57.2	5.0	1141	4	US-09-806-708B-22
11	54.8	4.8	1141	4	US-09-806-708B-22
12	49.6	4.4	426	4	US-09-134-000C-1635
13	49	4.3	640681	4	US-09-790-988-1
14	47.4	4.2	14066	4	US-09-601-198-56
15	46.4	4.1	471	4	US-09-543-681A-1232
16	45.8	4.0	751	4	US-08-956-171E-892
17	45.8	4.0	751	4	US-08-781-986A-892
18	45.6	4.0	832	4	US-09-621-976-2813
19	45.4	4.0	821	3	US-08-998-416-541
20	45	4.0	1134	4	US-09-601-198-62
21	44.8	4.0	423	4	US-09-710-279-1771
22	44.8	4.0	861	4	US-09-710-279-1145
23	44.8	4.0	984	3	US-09-134-001C-2705
24	44.8	4.0	3315	4	US-09-710-279-3820
25	44.8	4.0	3801	4	US-09-710-279-4271
26	44.8	4.0	3926	4	US-09-710-279-4300
27	43.8	3.9	744	4	US-09-248-796A-778

28	43.4	3.8	15598	4	US-08-956-171E-82
29	43.4	3.8	15598	4	US-08-781-986A-82
30	43.4	3.8	1664976	4	US-08-916-421B-1
31	43.4	3.8	1664976	4	US-09-692-570-1
C 32	42.8	3.8	6113	4	US-10-204-708-13
C 33	42.4	3.7	3001	4	US-09-539-333D-208
34	42.2	3.7	2919	4	US-09-248-796A-6131
35	41.6	3.7	1782	4	US-09-248-796A-5237
C 36	41.6	3.7	2517	4	US-09-893-600-1
37	41.4	3.7	603	4	US-09-248-796A-11532
38	41.4	3.7	825	4	US-09-248-796A-444
C 39	41.4	3.7	1055	4	US-08-806-708B-23
40	41.2	3.6	741	4	US-09-601-198-167
C 41	41.2	3.6	1347	4	US-09-248-796A-3017
42	41	3.6	1425	1	US-07-715-184-3
43	41	3.6	1425	1	US-07-876-280-6
44	41	3.6	1425	1	US-07-876-280-27
45	41	3.6	1425	1	US-07-935-310A-1

ALIGNMENTS

RESULT 1
US-09-381-862-2
; Sequence 2, Application US/09381862
; Patent No. 6245906
; GENERAL INFORMATION:
; APPLICANT: Ueyama, Hiroshi
; APPLICANT: Abe, Kanako
; APPLICANT: Keshi, Hiroyuki
; APPLICANT: Matsuhisa, Akio
; TITLE OF INVENTION: PROBES FOR THE DIAGNOSIS OF INFECTIONS
; TITLE OF INVENTION: CAUSED BY STREPTOCOCCUS PYOGENES
; NUMBER OF SEQUENCES: 8
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Marshall, O'Toole, Gerstein, Murray & Borun
; STREET: 233 South Wacker Drive/6300 Sears Tower
; CITY: Chicago
; STATE: Illinois
; COUNTRY: United States of America
; ZIP: 60606
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/381,862
; FILING DATE:
; CLASSIFICATION: 536
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: JP 1997-71077
; FILING DATE: 25-MAR-1997
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: PCT/JP98/01288
; FILING DATE: 23-MAR-1998
; ATTORNEY/AGENT INFORMATION:
; NAME: Cawley, Jr., Thomas A.
; REGISTRATION NUMBER: 40,944
; REFERENCE/DOCKET NUMBER: 19036/36274
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (312) 474-6300
; TELEFAX: (312) 474-0448
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 3200 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: double
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
; ORIGINAL SOURCE:
; ORGANISM: Streptococcus pyogenes

STRAIN: Clinical Isolate SP-7-44
US-09-381-862-2

Query Match 74.9%; Score 849; DB 3; Length 3200;
Best Local Similarity 98.7%; Pred. No. 9.5e-204;
Matches 866; Conservative 0; Mismatches 10; Indels

Qy	1	ATGATTCAATTTTCAATTAATCGCACATTTATTATTTCATGCTTTAAATACAACTAAACGT	60
Db	2324	ATGATTCAATTTTCAATTAATCGCACATTTATTATTTCATGCTTTAAATGCACTAAACGT <td>2383</td>	2383
Qy	61	GCTATTAGCAGCTAAAAATGCCATTCTCTATTCTTTCATCAATAAATAATGCAAGTCATCTCT <td>120</td>	120
Db	2384	GCTATTAGCAGCTAAAAATGCCATTCTCTATTCTTTCATCAATAAAGATTGAAGTCATCTCT <td>2443</td>	2443
Qy	121	ACAGGAGTAACTTTAAACAGGCTCTAACCGGTCAAATATCAATTTGAAAAACACTATTCCTGTA <td>180</td>	180
Db	2444	ACAGGAGTAACTTTAAACAGGCTCTAACCGGTCAAATATCAATTTGAAAAACACTATTCCTGTA <td>2503</td>	2503
Qy	181	AGTAATGAAAAATGCTGGTTTCTTAATTAACCTCTCCAGAGCTATTTTTATTAGAAGCTAGT <td>240</td>	240
Db	2504	AGTAATGAAAAATGCTGGTTTCTTAATTAACCTCTCCAGAGCTATTTTTATTAGAAGCTAGT <td>2563</td>	2563
Qy	241	TTTTTTTATTAAATATTATTTCAAAGTTTGCCAGATATTAGTATAAATGTTTAAAGAAATTGAA <td>300</td>	300
Db	2564	TTTTTTTATTAAATATTATTTCAAAGTTTGCCAGATATTAGTATAAATGTTTAAAGAAATTGAA <td>2623</td>	2623
Qy	301	CAACACCAAGTTGTTTAAACAGTGGTAAATCAGAGATTACCTTTAAAGGAAAAAGATGTT <td>360</td>	360
Db	2624	CAACACCAAGTTGTTTAAACAGTGGTAAATCAGAGATTACCTTTAAAGGAAAAAGATGTT <td>2683</td>	2683
Qy	361	GACCAAGTATCCTCGTCTACAAAGAGATCAACAGAAATCCTTTGATTTTAAAAACAAAA <td>420</td>	420
Db	2684	GACCAAGTATCCTCGTCTACAAAGAGATCAACAGAAATCCTTTGATTTTAAAAACAAAA <td>2743</td>	2743
Qy	421	TTATTGAAGTCTATTATTGCTGAAAAAGAGCTTTTGACGCCAGTTTACAAAGAAAGTCGTCCT <td>480</td>	480
Db	2744	TTATTGAAGTCTATTATTGCTGAAAAAGAGCTTTTGACGCCAGTTTACAAAGAAAGTCGTCCT <td>2803</td>	2803
Qy	481	ATTTTTAAACAGGAGTTTCATATTGTTTAAAGTAATCATAAAGATTTTAAAGCAGTAGCGACT <td>540</td>	540
Db	2804	ATTTTTAAACAGGAGTTTCATATTGTTTAAAGTAATCATAAAGATTTTAAAGCAGTAGCGACT <td>2863</td>	2863
Qy	541	GACTCTCATCGTATGAGCCAAAGCTTTTAAATCACTTTGCGAC - AATACTTTCAGCAGATTGAT <td>599</td>	599
Db	2864	GACTCTCATCGTATGAGCCAAAGCTTTTAAATCACTTTGCGACAAATCACTTTCAGCAGATTGAT <td>2923</td>	2923
Qy	600	GGTAGTTCTTCCAGTAATACTTTGAGAGAAATTTTCAGCAGATTTTACAGATGATATTGA <td>659</td>	659
Db	2924	TGTGGTTATTCCAAAGTAAATCTTTGAGAGAAATTTTCAGCAGATTTTACAGATGATATTGA <td>2983</td>	2983
Qy	660	GACCGTTGAGGTATTTTCTACCAAGCCAAATCTTGTTTCAAGGTGAAACATATTCCTTT <td>719</td>	719
Db	2984	GACCGTTGAGGTATTTTCTACCAAGCCAAATCTTGTTTCAAGGTGAAACATATTCCTTT <td>3043</td>	3043
Qy	720	TTATACACGCCTCTTAGAAGAAATTTATCCGATACAGACCGTTTATTATGACAGAATT <td>779</td>	779
Db	3044	TTATACACGCCTCTTAGAAGAAATTTATCCGATACAGACCGTTTATTATGACAGAATT <td>3103</td>	3103
Qy	780	TGAGACCGAGGTGTTGTTTCAATACCCAAATCCCTTCGCCACGCTATGGAAAGTCGCTCTTT <td>839</td>	839
Db	3104	TGAGACCGAGGTGTTGTTTCAATACCCAAATCCCTTCGCCACGCTATGGAAAGTCGCTCTTT <td>3163</td>	3163
Qy	840	GATTTCTAATGCTACTCAAAATGCTACTGTTTAAGCTT <td>876</td>	876
Db	3164	GATTTCTAATGCTACTCAAAATGCTACTGTTTAAGCTT <td>3200</td>	3200

RESULT 2
US-09-583-110-1744
Sequence 1744, Application US/09583110
Patent No. 6699703
GENERAL INFORMATION:

```

/ APPLICANT: Lynn Doucette-Stamm et al.
/ TITLE OF INVENTION: Nucleic Acid and Amino Acid Sequences Relating to Streptococcus
/ TITLE OF INVENTION: Pneumoniae for Diagnostics and Therapeutics
/ FILE REFERENCE: PATH00-07A
/ CURRENT APPLICATION NUMBER: US/09/583,110
/ CURRENT FILING DATE: 2000-05-26
/ PRIOR APPLICATION NUMBER: US 09/107,433
/ PRIOR FILING DATE: 1998-06-30
/ PRIOR APPLICATION NUMBER: US 60/085,131
/ PRIOR FILING DATE: 1998-05-12
/ PRIOR APPLICATION NUMBER: US 60/051,553
/ PRIOR FILING DATE: 1997-07-02
/ NUMBER OF SEQ ID NOS: 5322
/ SEQ ID NO 1744
/ LENGTH: 1137
/ TYPE: DNA
/ ORGANISM: Streptococcus pneumoniae
/ US-09-583-110-1744

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Query Match	53.6%	Score 608.2	DB 4	Length 1137
Best Local Similarity	71.1%	Pred. No. 2e-143		
Matches 805	Conservative 0	Mismatches 328	Indels 0	Gaps 0
QY 1	ATGATTCATTTTTCATTAATTCGCGACATTAATTTATTCATGCTTTTAAATACAACATTAACGCT	60		
DB				
QY 1	ATGATTCATTTTTCATTAATTAATAAAATTTATTTCTACAAGCATTAATATCTACTTAGAGA	60		
DB				
QY 61	GCTATTAGCACATAAAATGCCATTCCTATTCTTTTCATCAATAAAATTTGAAGTCATCTT	120		
DB				
QY 61	GCTATTAGTCTATAAAATGCCATTCCTATTATTTATCAACAGTAAAAATTCAGGTGACCAAT	120		
DB				
QY 121	ACAGGAGTAACTTTAAACAGGGTCTAACGGGTCAAAATATCAATTCGAAACACATATTCCTGT	180		
DB				
QY 121	GAAGGTATTACTTTTAAITGGTCCAAATGGTCAAATTTCAATGAAATTTTATTTCTCAA	180		
DB				
QY 181	AGTAATCAAAATCGTGGTTTGCTAAATGACCTCCAGGAGCTATTTTATTAGAGCTAGT	240		
DB				
QY 181	AAAANTGAAGATCGTGGTTTGTTGTTAAATTAATCTCTCTTAGGTTTCGATCCTTCTGAGGTTCT	240		
DB				
QY 241	TTTTTTTAAATAATTAATTTCAAGTTTGGCCAGATATTAGTATAAATGTTAAAGAAATGAA	300		
DB				
QY 241	TTCTTTATCAATGTAGTATCTAGTTTAACTGATGTAACCTCTTTGATTTTAAAGAAATGAA	300		
DB				
QY 301	CAACACAAAGTTGTTTTAAACCAAGTGTGTAATCAGAGATTACCTTAAAGGAAAGATGTT	360		
DB				
QY 301	CAAAATCAAAATGTTTTTAAACCAAGTGGCAATCAGAAATTTACCCTTAAAGGAAAGATAGC	360		
DB				
QY 361	GACCAATATCCAGCAATCCAGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	420		
DB				
QY 421	TTATTGAAGTCTATTATTGCTGAAACAGCTTTTGCAAGCAATTTTAAAGGAAAGATAGC	480		
DB				
QY 421	TTACTCAGAAATTTTAAAGGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	480		
DB				
QY 481	ATTTTAAACAGGAGTTTCAATTTGATTTAGTAAATCATAAAGATTTTAAAGGAAAGATAGC	540		
DB				
QY 481	ATTTTAAACAGGAGTTTCAATTTGATTTAGTAAATCATAAAGATTTTAAAGGAAAGATAGC	540		
DB				
QY 541	GACTCTCATCGTATGAGCAAGCTTTTAAAGGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	600		
DB				
QY 541	GACTCTCATCGTATGAGCAAGCTTTTAAAGGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	600		
DB				
QY 601	GTAGTTCTTCCAAAGTAAATCTTTTAAAGGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	660		
DB				
QY 601	GTAGTTCTTCCAAAGTAAATCTTTTAAAGGAAATTTTAAAGGAAATTTTAAAGGAAAGATAGC	660		
DB				
QY 661	ACGGTTGAGGATTTTCTCACCAGGCAATCTTTGTTGAGAGTGAACATTTCTTTT	720		
DB				
QY 661	ACTGTAGAGATTTTCTTTGCGCAATTAACCAATCTCTTTGAGAGCGGAAATTTAGCTTC	720		
DB				
QY 721	TATACAGGCTCTTAGAGGAAATTTTCCGATACAGACCGTTTATTAATGACAGAAATTT	780		
DB				

Db 721 TATACCTGCTCCTAGAGAACTATCCTGATACAGATCGCTTGAATCCAAACAGACTTT 780
 Qy 781 GAGACGGAGGTGTTTTCATACCAATCCCTTCGCCAGCTATGGAACGTCCTTCTTG 840
 Db 781 AACACTACTATTTTAAATGTTGTAACATPACGCCAGTCAATGGAGCGTCCCGTCTT 840
 Qy 841 ATTCTAATGCTACTCAAAATGGTACTGTTAAGCTTGAGATTTACTCAAAATCATATTCA 900
 Db 841 TTATCAAGTGGAGCTCAAAATGGTACTGTTAAGCTTGAAATTTAAGGATGGGGTTCGTAGC 900
 Qy 901 GCTCATGTTAACTCACTGAGGTGCTAAGGTAAAGGATTAAGATTTAGATTTAGTACG 960
 Db 901 GCCATGTTCACTCTCCAGAGTGGTAAAGTAAAGGAAATCGATCACTGATCAGTT 960
 Qy 961 TCTGCTAGTGAATTAATCACTATCAGCTTCAATCCAACTTACCTTATTTAGTCTTTAAAGCT 1020
 Db 961 ACTGGTGAAGATTGACCATTTAGTTTCAACCCCACTTACTTGAATTTCTCTTAAAGCT 1020
 Qy 1021 ATTAAGTGAACAGTAAATTTATCCAAATTAATTAACAGCTGACCATTCACCTTAACA 1080
 Db 1021 TTAATAGCAAAAGGTGACCATTTAGCTTTATCTCAGCTGTTTCGTCCATTTACTCTTGTG 1080
 Qy 1081 CCAGCGATGAGGAGAAAGTTTATCCAAATTAATTAACAGCTGACCATTCGTAACAAA 1133
 Db 1081 CCAGCAGATGACGAAAGCTTCATGAGCTCATTAACCCAGTTTCGTACAAA 1133

RESULT 3

US-08-961-527-20
 ; Sequence 20, Application US/08961527
 ; Patent No. 6420135
 ; GENERAL INFORMATION:
 ; APPLICANT: Charles Kunsch
 ; TITLE OF INVENTION: Streptococcus pneumoniae Polynucleotides and Sequences
 ; NUMBER OF SEQUENCES: 391
 ; CORRESPONDENCE ADDRESS:
 ; ADDRESSEE: Human Genome Sciences, Inc.
 ; STREET: 9410 Key West Avenue
 ; CITY: Rockville
 ; STATE: Maryland
 ; COUNTRY: USA
 ; ZIP: 20850
 ; COMPUTER READABLE FORM:
 ; MEDIUM TYPE: Diskette, 3.50 inch, 1.4mb storage
 ; COMPUTER: HP Vectra 486/33
 ; OPERATING SYSTEM: MSDOS version 6.2
 ; SOFTWARE: ASCII Text
 ; CURRENT APPLICATION DATA:
 ; APPLICATION NUMBER: US/08/961,527
 ; FILING DATE:
 ; CLASSIFICATION: 424
 ; PRIOR APPLICATION DATA:
 ; APPLICATION NUMBER:
 ; FILING DATE:
 ; ATTORNEY/AGENT INFORMATION:
 ; NAME: Brookes, A. Anders
 ; REGISTRATION NUMBER: 36,373
 ; REFERENCE/DOCKET NUMBER: PB340P1
 ; TELECOMMUNICATION INFORMATION:
 ; TELEPHONE: (301) 309-8504
 ; TELEFAX: (301) 309-8512
 ; INFORMATION FOR SEQ ID NO: 20:
 ; SEQUENCE CHARACTERISTICS:
 ; LENGTH: 2138 base pairs
 ; TYPE: nucleic acid
 ; STRANDEDNESS: double
 ; TOPOLOGY: linear
 ; US-08-961-527-20

Query Match 53.6%; Score 608.2; DB 4; Length 21338;
 Best Local Similarity 71.1%; Pred. No. 5.7e-143;
 Matches 805; Conservative 0; Mismatches 328; Indels 0; Gaps 0;

Qy 1 ATGATTCAATTTTCAATTAATTCGACATATTATTTATTCATGCTTTTAAATACAACTAAACGT 60
 Db 7076 ATGATTCAATTTTCAATTAATTAATAAATTTATTTCTACAGCATTAATACTACTAAGAGA 7135
 Qy 61 GCTATTAGCATTAAATGCGCATTCCTATTCTTTTCATCAATAAATAATTTGAAGTCACTTCT 120
 Db 7136 GCTATTAGTCTTAAATAATGCGCATTCCTATTATTCACAGTAAATAATTTGAGTGACCAAT 7195
 Qy 121 ACAGAGGTAACTTTAAACAGGGTCTAAACGGTCAAAATATCAATTTGAAAAACACTATTCTCTGA 180
 Db 7196 GAAGGTATTACTTTAAATTTGGTTCAAAATGTTCAAAATTTCAATTTGAAAAATTTTATTCTCAA 7255
 Qy 181 AGTAATGAATAATGCTGGTTTGTCTAATTTACCTCTCCAGGAGCTATTTTATTAGAACGTAGT 240
 Db 7256 AAAAATGAAGATGCTGGTTTGTCTAATTTACTTTAGTTCGATCTCTTCTTGAAGCTTCT 7315
 Qy 241 TTTTATTATTAATTTTCAAGTTTGCAGATATTAGTATATAAATGTTTAAAGAAATTGAA 300
 Db 7316 TTTTATTATTAATTTTCAAGTTTGTCTAATTTACTGATGTAATCTTTGATTTTAAAGAAATTGAA 7375
 Qy 301 CAACACCAAGTTGTTTAAACAGGTGTAATACAGAGATTACCTTAAAGGAAAAAGATGTT 360
 Db 7376 CAAATCAATTTGTTTAAACAGGTGTAATACAGAGATTACCTTAAAGGAAAAAGATGAGC 7435
 Qy 361 GACAGTATCTCTGTCTACAAGAGATATCAACAGAAAAATCTCTTCAATTTTAAACAAAA 420
 Db 7436 GAACAAATATCCAGAAATTTTCAAGAAATTTTCAAGCAAGCTCTCTTAAATTTTAAACAAAA 7495
 Qy 421 TTATTGAGTCTATTATTTGTAACAGCTTTTGCAGCAGCTTTTAAAGCAAGTACGAGT 480
 Db 7496 TTACTCAAGAAAAATTTAATTAAGCAAGCTTTTGTCTGCAAGTACCAAGAGAGTCTGTCG 7555
 Qy 481 ATTTTAAACAGGATTCATATTGTAATTAAGTAAATCATAAAGATTTTAAAGCAAGTACGAGT 540
 Db 7556 ATTTTAAACAGGATTCATATTGTAATTAAGTAAATCATAAAGATTTTAAAGCAAGTACGAGT 7615
 Qy 541 GACTCTCATGATGAGGCAAGCTTTTAAATCACTTTGGACAAATATCTTCAAGCAAGATTTGATG 600
 Db 7616 GACTCTCATGCTTAAGCCAGAAAAATTTGACTCTTGAATAAATAATAGTATGATTTTATGAT 7675
 Qy 601 GTAGTTCTTCAAGTAAATCTTTGAGAGAAATTTTCAAGCAAGTATTTTCAAGATGATTTGAG 660
 Db 7676 GTGTAATTTCTAGCCGTTCTCTACGCGAAATTTTCAAGCGGATTTTACAGATGATATCGAA 7735
 Qy 661 ACCGTTGAGGTATTTTCTCAACAGGCAAAATCTTTGTTTCAAGAGTGAACACATTTCTTTT 720
 Db 7736 ACTGTAGAGATTTTCTTTGCAATTAACAAATCTCTTTAGAACGGAATAATTTAGCTTC 7795
 Qy 721 TATACAGCTCTTTAGAGGAAATTTATCCGATACAGACCGTTTATTAAATGACAGAAATTT 780
 Db 7796 TATACAGCTCTTTAGAGGAAATTTATCCGATACAGACCGTTTATTAAATGACAGAAATTT 7855
 Qy 781 GAGACGGAGGTGTTTTCATATCCCATCTCTTCCGCAAGCTATGGAACGTCCTTCTTG 840
 Db 7856 AACACTACTATTATTTTAAATGTTGTTAAATCTTACGCGCAATTAAGGAGCGTCCCGCTT 7915
 Qy 841 ATTTCTAATGCTACTCAAAATGTTGTTTAAAGTTCAGATTTACTCAAAATCATATTTCATCA 900
 Db 7916 TTATCAAGTGGAGTCAAAATGTTGTTTAAAGTTCAGATTTACTCAAAATCATATTTCATCA 7975
 Qy 901 GCTCATGTTAACTCACTGAGGTGTTGTAAGGTAAACGAGGATTTAGATATTGTTAGTACAG 960
 Db 7976 GCCCATGTTCACTCTCCAGAAATTTGTTAAAGTAAACGAGGAAATTCGATCTGATCAGGTT 8035
 Qy 961 TCTGGTAGTGAATTAATCACTATCAGCTTCAATCCCACTTACCTTATTGAGTCTTTTAAAGCT 1020
 Db 8036 ACTGGTGAAGATTTGACCATTTAGTTTCAACCCCACTTACTTTGATTTGATTTCTTTAAAGCT 8095
 Qy 1021 ATTAAGAGTGAACAGTAAATAATTTCTTTTCTTATCAGCAGTTTCAGCATTCACCTTAACA 1080
 Db 8096 TTAATAGCAAAAGGTGACTATTTAGCTTTTATCTCAGCTGTTTCGTCCATTTACTCTTGTG 8155
 Qy 1081 CCAGCGATGAGGAAAGTGTATTTTATCCAAATTAATTAACAGGTAACGAAACAAA 1133

10/048071

(FILE 'CAPLUS' ENTERED AT 09:49:53 ON 04 FEB 2005)
L1 455 S (DNAN OR DNA N)
L2 2 S L1 AND (STREPTOCOCC? OR S) (W) PYOGEN?

(FILE 'REGISTRY' ENTERED AT 09:52:36 ON 04 FEB 2005)
L4 1 SEA FILE=REGISTRY ABB=ON PLU=ON "DNA (STREPTOCOCCUS PYOGENES
GENE DNAN)"/CN

FILE 'CAPLUS' ENTERED AT 09:54:56 ON 04 FEB 2005
L5 1 S L4
L6 2 S L2 OR L5

L6 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 03 May 2002

ACCESSION NUMBER: 2002:332364 CAPLUS

DOCUMENT NUMBER: 136:352018

TITLE: **Streptococcus pyogenes** DNA
polymerase III holoenzyme subunits and their genes

INVENTOR(S): McHenry, Charles S.; Bullard, James M.; Janjic,
Nebojsa; Manhardt, Erika L.; Kery, Vladimir; Williams,
Jennifer C.

PATENT ASSIGNEE(S): Replidyne, Inc., USA

SOURCE: PCT Int. Appl., 268 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002034936	A2	20020502	WO 2001-US48396	20011029
WO 2002034936	C2	20030417		
WO 2002034936	A3	20020725		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002032586	A5	20020506	AU 2002-32586	20011029
PRIORITY APPLN. INFO.:			US 2000-244023P	P 20001027
			WO 2001-US48396	W 20011029

AB **Streptococcus pyogenes** nucleic acid mols. encoding polC, dnaE (subunit α), hola (subunit δ), holB (subunit δ'), dnaX (subunit τ), **dnaN** (subunit β), SSB (single-stranded DNA-binding protein), dnaG (primase), dnaQ (subunit ϵ), dnaA and dnaB proteins, as well as nucleic acid mols. comprising the oriC origin of replication are provided. The encoded subunit proteins of **S. pyogenes** DNA polymerase III are also provided. The nucleic acid mols. and proteins are useful for reconstituting replicases and polymerases for sequencing, amplification,

10/048071

and screening for compds. which modulate the function of the polymerase or replicase.

IT 419927-96-1, DNA (**Streptococcus pyogenes** gene **dnaN**)

RL: ANT (Analyte); BSU (Biological study, unclassified); BUU (Biological use, unclassified); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(nucleotide sequence; **Streptococcus pyogenes** DNA polymerase III holoenzyme subunits and their genes)

L6 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN

ED Entered STN: 09 Feb 2001

ACCESSION NUMBER: 2001:101168 CAPLUS

DOCUMENT NUMBER: 134:143863

TITLE: DNA replication proteins of Gram-positive bacteria and their use to screen for chemical inhibitors

INVENTOR(S): O'donnell, Michael E.; Bruck, Irina; Zhang, Dan; Whipple, Richard

PATENT ASSIGNEE(S): The Rockefeller University, USA

SOURCE: PCT Int. Appl., 238 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009164	A2	20010208	WO 2000-US20666	20000728
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
AU 2000067499	A5	20010219	AU 2000-67499	20000728
US 2003129633	A1	20030710	US 2002-282287	20021028
PRIORITY APPLN. INFO.:			US 1999-235245	A 19990122
			US 1999-146178P	P 19990729
			US 1998-74522P	P 19980127
			US 1998-93727P	P 19980722
			WO 2000-US20666	W 20000728

AB The present invention relates to α -large, α -small, δ , δ' , τ , β , SSB, DnaG, and DnaB and (polC, dnaE, holA, holB, dnaX, **dnaN**, ssb, dnaG, dnaB) genes encoding them from Gram pos. bacteria, preferably **Streptococcus pyogenes** and *Staphylococcus aureus*. The individual genes and proteins or polypeptides are useful in identification of compds. with antibiotic activity. Thus, the structure and mechanism of the chromosomal replicase of **S. pyogenes** and *S. aureus* have been elucidated. These DNA polymerases use a sliding clamp (the **dnaN**-encoded β subunit) and clamp loader (the dnaX-encoded τ subunit). The clamp and clamp loader components of Gram-neg. cells could be exchanged for those of Gram-pos. cells.

Searcher : Shears 571-272-2528

10/048071

(FILE 'MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO' ENTERED AT 09:56:11 ON 04 FEB 2005)

L7

1 S L6

L7 ANSWER 1 OF 1 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN

ACCESSION NUMBER: 2001-147453 [15] WPIDS

DOC. NO. CPI: C2001-043718

TITLE: Isolated DNA molecule from a Gram positive bacterium encoding DNA replication proteins used to identify compounds which have antibiotic activity.

DERWENT CLASS: B04 D16

INVENTOR(S): BRUCK, I; O'DONNELL, M E; WHIPPLE, R; ZHANG, D

PATENT ASSIGNEE(S): (UYRQ) UNIV ROCKEFELLER

COUNTRY COUNT: 91

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001009164	A2	20010208	(200115)*	EN	238
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW					
W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2000067499	A	20010219	(200129)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001009164	A2	WO 2000-US20666	20000728
AU 2000067499	A	AU 2000-67499	20000728

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2000067499	A Based on	WO 2001009164

PRIORITY APPLN. INFO: US 1999-146178P 19990729

AN 2001-147453 [15] WPIDS

AB WO 200109164 A UPAB: 20011129

NOVELTY - Isolated DNA molecule (I) from a Gram positive bacterium comprises a coding region from a polC, dnaE, holA, holB, dnaX, dnaN, ssb, dnaG or a dnaB gene.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) an expression system comprising an expression vector into which is inserted (I);

(2) a host cell comprising (I);

(3) an isolated protein or polypeptide from a Gram positive bacterium which is alpha-large, alpha-small, delta, delta prime, tau, beta, SSB, DnaG or DnaB protein or polypeptide; and

(4) a method of identifying compounds which inhibit the activity of a

Searcher : Shears 571-272-2528

polymerase product of polC or dnaE comprising:

(a) forming a reaction mixture containing a primed DNA molecule, a polymerase product of polC or dnaE, a candidate compound, a dNTP, and optionally a beta subunit and/or a tau complex, where at least one of the polymerase product of polC or dnaE, beta subunit, tau complex, or a subunit or combination of subunits is derived from a Eubacteria other than *Escherichia coli*;

(b) subjecting the reaction mixture to conditions effective for polymerization extension products in the absence of the candidate compound;

(c) analyzing the reaction mixture for the presence or absence of nucleic acid polymerization extension products; and

(d) identifying the candidate compound in the reaction mixture where there is an absence of nucleic acid polymerization products.

USE - (I) encodes proteins that replicate the chromosome of Gram positive bacteria and are used for sequencing and amplification of DNA and in drug discovery to identify compounds which have antibiotic activity through interference with replication. The methods identify compounds that are active at the level of DNA replication and result in arrest of cell growth or cell death of bacteria to treat bacterial infections in animals.

ADVANTAGE - (I) encodes proteins which provide further targets for antibiotics. The methods are amenable to high throughput screening assays.
Dwg.0/21

(FILE 'USPATFULL' ENTERED AT 09:57:14 ON 04 FEB 2005)

L9 19 S L5 OR L1(L) ((STREPTOCOCC? OR S) (W) PYOGEN?)

L9 ANSWER 1 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2005:30758 USPATFULL

TITLE: Microbial operons

INVENTOR(S): Wang, Liangsu, San Diego, CA, UNITED STATES
Zamudio, Carlos, La Jolla, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005026189	A1	20050203
APPLICATION INFO.:	US 2004-857625	A1	20040528 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-474768P	20030529 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	KNOBBE MARTENS OLSON & BEAR LLP, 2040 MAIN STREET, FOURTEENTH FLOOR, IRVINE, CA, 92614	
NUMBER OF CLAIMS:	35	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	10876	

AB Described herein is a method for predicting operons in prokaryotes. Also described herein are vectors comprising operons predicted using the this method as well as methods of using antisense nucleic acids complementary to at least a portion of a predicted proliferation-required operon to inhibit cellular proliferation. Methods of using such antisense nucleic acids to sensitize cells for use in assays to identify compounds which possess the ability to inhibit cellular proliferation are also

10/048071

described.

INCL INCLM: 435/006.000
INCLS: 702/020.000
NCL NCLM: 435/006.000
NCLS: 702/020.000

L9 ANSWER 2 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2005:10919 USPATFULL
TITLE: Fragmentation-based methods and systems for de novo
sequencing
INVENTOR(S): Boecker, Sebastian, Bielefeld, GERMANY, FEDERAL
REPUBLIC OF
Boom, Dirk van den, La Jolla, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005009053	A1	20050113
APPLICATION INFO.:	US 2004-830943	A1	20040422 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2003-466006P	20030425 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Stephanie L. Seidman, FISH & RICHARDSON P.C., 12390 El Camino Real, San Diego, CA, 92130-2081	
NUMBER OF CLAIMS:	84	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	17 Drawing Page(s)	
LINE COUNT:	4217	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Methods and systems, particularly mass spectrometric methods and systems, for the analysis and sequencing of biomolecules, particularly nucleic acids, by fragmentation are provided.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/007.100; 702/020.000
NCL NCLM: 435/006.000
NCLS: 435/007.100; 702/020.000

L9 ANSWER 3 OF 19 USPATFULL on STN
ACCESSION NUMBER: 2004:299897 USPATFULL
TITLE: System for discovery of agents that block yersinia
pestis and pseudomonas aeruginosa dna replication
INVENTOR(S): Bullard, James M., Longmont, CO, UNITED STATES
Janjic, Nebojsa, Boulder, CO, UNITED STATES
McHenry, Charles S., Denver, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004235766	A1	20041125
APPLICATION INFO.:	US 2003-476597	A1	20031031 (10)
	WO 2002-US15111		20020514

Searcher : Shears 571-272-2528

10/048071

	NUMBER	DATE
PRIORITY INFORMATION:	US 2001-60290725	20010514
	US 2001-60332644	20011105
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SWANSON & BRATSCHEUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129	
NUMBER OF CLAIMS:	6	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	77 Drawing Page(s)	
LINE COUNT:	5150	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	Y. pestis and P. aeruginosa nucleic acid molecules encoding dnaE, hola, holB, holC, hold, holE, dnaX, dnaN, SSB, dnaG, dnaQ, proteins are provided. The encoded proteins are also provided. The nucleic acid molecules and proteins are useful for reconstituting replicases and polymerases for sequencing, amplification, and screening for compounds which modulate the function of the polyemersase or replicase.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 435/006.000
NCL NCLM: 514/044.000
NCLS: 435/006.000

L9 ANSWER 4 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:250212 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to Streptococcus pneumoniae for diagnostics and therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6800744	B1	20041005
APPLICATION INFO.:	US 1998-107433		19980630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85131P	19980512 (60)
	US 1997-51553P	19970702 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Brusca, John S.	
ASSISTANT EXAMINER:	Zhou, Shubo "Joe "	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	14	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	11545	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The invention provides isolated polypeptide and nucleic acid sequences	

Searcher : Shears 571-272-2528

10/048071

derived from Streptococcus pneumonia that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 536/023.100
INCLS: 435/006.000; 435/320.100; 435/325.000; 435/254.000; 435/419.000;
536/024.100; 536/023.400; 536/024.320
NCL NCLM: 536/023.100
NCLS: 435/006.000; 435/320.100; 435/325.000; 435/419.000; 536/023.400;
536/024.100; 536/024.320

L9 ANSWER 5 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:217811 USPATFULL

TITLE: Development of novel anti-microbial agents based on bacteriophage genomics

INVENTOR(S): Pelletier, Jerry, 8 Lakeview, Baie-D'Urfe, Quebec,
CANADA H9X 3B1
Gros, Philippe, 107 Montrose, St. Lambert, Quebec,
CANADA J4R 1X4
DuBow, Michael, 4901 Coolbrook Avenue, Montreal,
Quebec, CANADA H3X 2K8

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6783930	B1	20040831
APPLICATION INFO.:	US 1999-454252		19991202 (9)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1999-407804, filed on 28 Sep 1999		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-110992P	19981203 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Wax, Robert A.	
ASSISTANT EXAMINER:	Mitra, Rita	
NUMBER OF CLAIMS:	10	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	9 Drawing Figure(s); 8 Drawing Page(s)	
LINE COUNT:	9158	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method for identifying suitable targets for antibacterial agents based on identifying targets of bacteriophage-encoded proteins is described. Also described are compositions useful in the identification methods and in inhibiting bacterial growth, and methods for preparing and using such compositions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/005.000
INCLS: 435/007.100; 435/007.330; 435/007.800; 435/883.000; 536/023.700;
530/350.000; 530/820.000
NCL NCLM: 435/005.000
NCLS: 435/007.100; 435/007.330; 435/007.800; 435/883.000; 530/350.000;

Searcher : Shears 571-272-2528

10/048071

530/820.000; 536/023.700

L9 ANSWER 6 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:178350 USPATFULL

TITLE: DNA sequences from staphylococcus aureus bacteriophage 44AHJD that encode anti-microbial polypeptides

INVENTOR(S): Pelletier, Jerry, Baie-D'Urfe, CANADA

Gros, Philippe, St. Lambert, CANADA

DuBow, Michael, Antony, FRANCE

Bergeron, Dominique, Montreal, CANADA

PATENT ASSIGNEE(S): Phagotech, Inc. (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004137516	A1	20040715
APPLICATION INFO.:	US 2003-449830	A1	20030531 (10)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-727892, filed on 1 Dec 2000, PENDING Continuation of Ser. No. WO 2001-CA1754, filed on 30 Nov 2001, UNKNOWN		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-168777P	19991201 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SUGHRUE MION, PLLC, 2100 PENNSYLVANIA AVENUE, N.W., SUITE 800, WASHINGTON, DC, 20037	
NUMBER OF CLAIMS:	43	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	24 Drawing Page(s)	
LINE COUNT:	3666	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	This invention relates to newly identified polynucleotides and polypeptides, and their production and uses, as well as their variants, agonists and antagonists, and their uses. In particular, the invention relates to specific interaction between the S. aureus STAAU_R2 related protein or specific regions thereof, and growth-inhibitory proteins encoded by the S. aureus bacteriophage genome. The invention relates to the use of these interaction target sites as the basis of drug screening assays.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/007.100

NCL NCLM: 435/007.100

L9 ANSWER 7 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:152148 USPATFULL

TITLE: Retroductal salivary gland genetic vaccination

INVENTOR(S): Tucker, Sean, San Francisco, CA, UNITED STATES

Bennett, Michael, El Sobrante, CA, UNITED STATES

Chen, Yen-Ju, Alameda, CA, UNITED STATES

Olson, David, Alameda, CA, UNITED STATES

PATENT ASSIGNEE(S): Genteric, Inc., Alameda, CA (U.S. corporation)

NUMBER	KIND	DATE
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Searcher : Shears 571-272-2528

10/048071

PATENT INFORMATION: US 2004116370 A1 20040617
APPLICATION INFO.: US 2003-649106 A1 20030826 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-407375P	20020830 (60)
	US 2003-453999P	20030311 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	TOWNSEND AND TOWNSEND AND CREW, LLP, TWO EMBARCADERO CENTER, EIGHTH FLOOR, SAN FRANCISCO, CA, 94111-3834	
NUMBER OF CLAIMS:	51	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	21 Drawing Page(s)	
LINE COUNT:	2307	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		
AB	The present invention provides compositions and methods for eliciting an immune response and compositions and methods for transfecting antigen presenting cells.	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 424/093.200; 514/150.000
NCL NCLM: 514/044.000
NCLS: 424/093.200; 514/150.000

L9 ANSWER 8 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:139392 USPATFULL
TITLE: Methods for treating and preventing infectious disease
INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Klinman, Dennis, Potomac, MD, UNITED STATES
Steinberg, Alfred D., Potomac, MD, UNITED STATES
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA (U.S. corporation)
The United States of America, as Represented by the Secretary, Dept. of Health & Human Services, Bethesda, MD (U.S. corporation)
Coley Pharmaceutical Group, Inc., Wellesley, MA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004106568	A1	20040603
APPLICATION INFO.:	US 2003-627331	A1	20030725 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-187489, filed on 2 Jul 2002, PENDING Division of Ser. No. US 2000-630319, filed on 31 Jul 2000, PENDING Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		

Searcher : Shears 571-272-2528

10/048071

LEGAL REPRESENTATIVE: Helen C. Lockhart, Wolf, Greenfield & Sacks, P.C.,
Federal Reserve Plaza, 600 Atlantic Avenue, Boston, MA,
02210

NUMBER OF CLAIMS: 41
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Page(s)
LINE COUNT: 3441

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acid sequences containing unmethylated CpG dinucleotides that
modulate an immune response including stimulating a Th1 pattern of
immune activation, cytokine production, NK lytic activity, and B cell
proliferation are disclosed. The sequences are also useful as a
synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 536/023.100
NCL NCLM: 514/044.000
NCLS: 536/023.100

L9 ANSWER 9 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:120447 USPATFULL

TITLE: DNA sequences from staphylococcus aureus bacteriophage
44AHJD that encode anti-microbial polypeptides

INVENTOR(S): Pelletier, Jerry, Baie-D'Urfe, CANADA
Gros, Philippe, Lambert, CANADA
Dubow, Michael, Montreal, CANADA

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004091856	A1	20040513
APPLICATION INFO.:	US 2000-727892	A1	20001201 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-168777P	19991201 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	FOLEY & LARDNER, P.O. BOX 80278, SAN DIEGO, CA, 92138-0278	
NUMBER OF CLAIMS:	110	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	16 Drawing Page(s)	
LINE COUNT:	9802	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The disclosure concerns particular bacteriophage open reading frame, and
portions and products of those open reading frames which have
antimicrobial activity Also disclosed is an S. aureus protein that
interacts with an inhibitory phage protein. Methods of using such
products are also described.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/005.000
NCL NCLM: 435/006.000
NCLS: 435/005.000

Searcher : Shears 571-272-2528

10/048071

L9 ANSWER 10 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2004:114692 USPATFULL

TITLE: Methods of treating cancer using immunostimulatory oligonucleotides

INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Weiner, George, Iowa City, IA, UNITED STATES

PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004087538	A1	20040506
APPLICATION INFO.:	US 2003-719493	A1	20031121 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-337619, filed on 21 Jun 1999, GRANTED, Pat. No. US 6653292 Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Helen C. Lockhart, Ph.D., Wolf, Greenfield & Sacks, P.C., 600 Atlantic Avenue, Boston, MA, 02210		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Page(s)		
LINE COUNT:	3433		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful as a synthetic adjuvant.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 435/006.000; 536/023.100
NCL NCLM: 514/044.000
NCLS: 435/006.000; 536/023.100

L9 ANSWER 11 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:312140 USPATFULL

TITLE: Novel DNA polymerase III holoenzyme delta subunit nucleic acid molecules and proteins

INVENTOR(S): Bullard, James M., Longmont, CO, UNITED STATES
Janjic, Nebojsa, Boulder, CO, UNITED STATES
McHenry, Charles S., Denver, CO, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003219737	A1	20031127
APPLICATION INFO.:	US 2001-906179	A1	20010716 (9)

Searcher : Shears 571-272-2528

10/048071

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2001-818780, filed on 28 Mar 2001, PENDING

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-218246P	20000714 (60)
	US 2000-192736P	20000328 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	SWANSON & BRATSCHEUN L.L.C., 1745 SHEA CENTER DRIVE, SUITE 330, HIGHLANDS RANCH, CO, 80129	
NUMBER OF CLAIMS:	76	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	59 Drawing Page(s)	
LINE COUNT:	14551	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Gene and amino acid sequences encoding DNA polymerase III holoenzyme δ subunits and structural genes from bacteria are provided. Also provided are antibodies and other reagents useful to identify DNA polymerase III δ subunit molecules. Also provided are methods to identify DNA polymerase III δ subunit molecules. The use of DNA polymerase III δ subunit molecules in assays to identify candidate antibiotics are also provided.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/199.000; 702/020.000
NCL NCLM: 435/006.000
NCLS: 435/199.000; 702/020.000

L9 ANSWER 12 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:309071 USPATFULL

TITLE: Method of treating cancer using immunostimulatory oligonucleotides

INVENTOR(S): Krieg, Arthur M., Iowa City, IA, United States
Weiher, George, Iowa City, IA, United States

PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6653292	B1	20031125
APPLICATION INFO.:	US 1999-337619		19990621 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, now patented, Pat. No. US 6239116, issued on 29 May 2001 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, now patented, Pat. No. US 6207646, issued on 27 Mar 2001 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, now patented, Pat. No. US 6194388, issued on 27 Feb 2001 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Martinell, James		
LEGAL REPRESENTATIVE:	Wolf, Greenfield & Sacks, P.C.		

Searcher : Shears 571-272-2528

10/048071

NUMBER OF CLAIMS: 57
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 19 Drawing Page(s)
LINE COUNT: 3666

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful a synthetic adjuvant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 536/023.100
NCL NCLM: 514/044.000
NCLS: 536/023.100

L9 ANSWER 13 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:271471 USPATFULL
TITLE: Methods for treating and preventing infectious disease
INVENTOR(S): Krieg, Arthur M., Wellesley, MA, UNITED STATES
Klinman, Dennis, Potomac, MD, UNITED STATES
Steinberg, Alfred D., Potomac, MD, UNITED STATES
PATENT ASSIGNEE(S): University of Iowa Research Foundation, Iowa City, IA
(U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003191079	A1	20031009
APPLICATION INFO.:	US 2002-306522	A1	20021127 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2002-187489, filed on 2 Jul 2002, PENDING Division of Ser. No. US 2000-630319, filed on 31 Jul 2000, PENDING Division of Ser. No. US 1997-960774, filed on 30 Oct 1997, GRANTED, Pat. No. US 6239116 Continuation-in-part of Ser. No. US 1996-738652, filed on 30 Oct 1996, GRANTED, Pat. No. US 6207646 Continuation-in-part of Ser. No. US 1995-386063, filed on 7 Feb 1995, GRANTED, Pat. No. US 6194388 Continuation-in-part of Ser. No. US 1994-276358, filed on 15 Jul 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Helen C. Lockhart, Wolf, Greenfield & Sacks, P.C., Federal Reserve Plaza, 600 Atlantic Avenue, Boston, MA, 02210		
NUMBER OF CLAIMS:	41		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	19 Drawing Page(s)		
LINE COUNT:	3449		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Nucleic acid sequences containing unmethylated CpG dinucleotides that modulate an immune response including stimulating a Th1 pattern of immune activation, cytokine production, NK lytic activity, and B cell proliferation are disclosed. The sequences are also useful as a synthetic adjuvant.

Searcher : Shears 571-272-2528

10/048071

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000
INCLS: 536/023.200
NCL NCLM: 514/044.000
NCLS: 536/023.200

L9 ANSWER 14 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:240330 USPATFULL
TITLE: Nucleic acid and amino acid sequences relating to
Enterococcus faecalis for diagnostics and therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., 14 Flanagan Dr., Framingham,
MA, United States 01701
Bush, David, 205 Holland St., Somerville, MA, United
States 02144

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6617156	B1	20030909
APPLICATION INFO.:	US 1998-134000		19980813 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-55778P	19970815 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Mosher, Mary E.	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	19	
EXEMPLARY CLAIM:	1,5,14	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	13738	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived from Enterococcus faecalis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/320.100
INCLS: 536/023.700; 536/024.320; 435/252.300; 435/069.100; 435/006.000
NCL NCLM: 435/320.100
NCLS: 435/006.000; 435/069.100; 435/252.300; 536/023.700; 536/024.320

L9 ANSWER 15 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:187843 USPATFULL
TITLE: DNA replication proteins of Gram positive bacteria and
their use to screen for chemical inhibitors
INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, UNITED
STATES
Zhang, Dan, Forest Hills, NY, UNITED STATES
Whipple, Richard, Elizabeth, NJ, UNITED STATES

NUMBER	KIND	DATE
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Searcher : Shears 571-272-2528

10/048071

PATENT INFORMATION: US 2003129633 A1 20030710
APPLICATION INFO.: US 2002-282287 A1 20021028 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1999-235245, filed on 22
Jan 1999, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-74572P	19980213 (60)
	US 1998-93727P	19980722 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	32	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	11 Drawing Page(s)	
LINE COUNT:	3756	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The duplex DNA of chromosomes is replicated in a multicomponent process. A helicase unwinds the DNA, a replicase synthesizes new DNA, and primase repeatedly synthesizes new primed starts on the lagging strand. The present invention is directed to the genes from Gram positive bacterium encoding these proteins, and their characterization.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/069.300; 435/199.000; 435/252.300; 435/320.100; 536/023.700
NCL NCLM: 435/006.000
NCLS: 435/069.300; 435/199.000; 435/252.300; 435/320.100; 536/023.700

L9 ANSWER 16 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:169096 USPATFULL
TITLE: Nucleic acid sequences and expression system relating
to Enterococcus faecium for diagnostics and
therapeutics
INVENTOR(S): Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6583275	B1	20030624
APPLICATION INFO.:	US 1998-107532		19980630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-85598P	19980514 (60)
	US 1997-51571P	19970702 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Marschel, Ardin H.	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	34	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	

Searcher : Shears 571-272-2528

10/048071

LINE COUNT: 15265

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived *Enterococcus faecium* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 536/023.100

INCLS: 435/006.000; 435/243.000; 435/320.100; 435/325.000; 536/024.300; 536/024.320

NCL NCLM: 536/023.100

NCLS: 435/006.000; 435/243.000; 435/320.100; 435/325.000; 536/024.300; 536/024.320

L9 ANSWER 17 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2003:130010 USPATFULL

TITLE: Nucleic acid and amino acid sequences relating to *Acinetobacter baumannii* for diagnostics and therapeutics

INVENTOR(S): Breton, Gary, Marlborough, MA, United States

Bush, David, Somerville, MA, United States

PATENT ASSIGNEE(S): Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6562958	B1	20030513
APPLICATION INFO.:	US 1999-328352		19990604 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-88701P	19980609 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	GRANTED	
PRIMARY EXAMINER:	Borin, Michael	
LEGAL REPRESENTATIVE:	Genome Therapeutics Corporation	
NUMBER OF CLAIMS:	15	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)	
LINE COUNT:	16618	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention provides isolated polypeptide and nucleic acid sequences derived from *Acinetobacter mirabilis* that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 536/023.700

INCLS: 536/023.100

NCL NCLM: 536/023.700

NCLS: 536/023.100

Searcher : Shears 571-272-2528

10/048071

L9 ANSWER 18 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2002:343879 USPATFULL
TITLE: Novel Polynucleotides
INVENTOR(S): Nakagawa, Satoshi, Tokyo, JAPAN
Mizoguchi, Hiroshi, Tokyo, JAPAN
Ando, Seiko, Tokyo, JAPAN
Hayashi, Mikiro, Tokyo, JAPAN
Ochiai, Keiko, Tokyo, JAPAN
Yokoi, Haruhiko, Tokyo, JAPAN
Tateishi, Naoko, Tokyo, JAPAN
Senoh, Akihiro, Tokyo, JAPAN
Ikeda, Masato, Tokyo, JAPAN
Ozaki, Akio, Hofu-shi, JAPAN

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002197605	A1	20021226
APPLICATION INFO.:	US 2000-738626	A1	20001218 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	JP 1999-377484	19991216
	JP 2000-159162	20000407
	JP 2000-280988	20000803
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	NIXON & VANDERHYE P.C., 8th Floor, 1100 North Glebe Road, Arlington, VA, 22201	
NUMBER OF CLAIMS:	68	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	4 Drawing Page(s)	
LINE COUNT:	13673	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Novel polynucleotides derived from microorganisms belonging to coryneform bacteria and fragments thereof, polypeptides encoded by the polynucleotides and fragments thereof, polynucleotide arrays comprising the polynucleotides and fragments thereof, recording media in which the nucleotide sequences of the polynucleotide and fragments thereof have been recorded which are readable in a computer, and use of them.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 435/006.000
INCLS: 435/091.200; 435/287.200
NCL NCLM: 435/006.000
NCLS: 435/091.200; 435/287.200

L9 ANSWER 19 OF 19 USPATFULL on STN

ACCESSION NUMBER: 2002:32536 USPATFULL
TITLE: Compositions and methods for in vivo delivery of polynucleotide-based therapeutics
INVENTOR(S): Manthorpe, Marston, San Diego, CA, UNITED STATES
Hartikka, Jukka, San Diego, CA, UNITED STATES
Sukhu, Loretta, San Diego, CA, UNITED STATES
PATENT ASSIGNEE(S): Vical Incorporated, San Diego, CA (U.S. corporation)

Searcher : Shears 571-272-2528

10/048071

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002019358	A1	20020214
APPLICATION INFO.:	US 2001-839574	A1	20010423 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2000-198823P	20000421 (60)
	US 2000-253153P	20001128 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	STERNE, KESSLER, GOLDSTEIN & FOX PLLC, 1100 NEW YORK AVENUE, N.W., SUITE 600, WASHINGTON, DC, 20005-3934	
NUMBER OF CLAIMS:	163	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	29 Drawing Page(s)	
LINE COUNT:	4605	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to pharmaceutical compositions and methods to improve expression of exogenous polypeptides into vertebrate cells in vivo, utilizing delivery of polynucleotides encoding such polypeptides. More particularly, the present invention provides the use of salts, in particular sodium and potassium salts of phosphate, in aqueous solution, and auxiliary agents, in particular detergents and surfactants, in pharmaceutical compositions and methods useful for direct polynucleotide-based polypeptide delivery into the cells of vertebrates.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

INCL INCLM: 514/044.000

NCL NCLM: 514/044.000

(FILE 'CAPLUS, MEDLINE, BIOSIS, EMBASE, WPIDS, CONFSCI, SCISEARCH, JICST-EPLUS, JAPIO, USPATFULL' ENTERED AT 09:58:41 ON 04 FEB 2005)

L10 4314 S ("ODONNEL M"? OR "O DONNELL M"?)/AU
L11 194 S "BRUCK I"?/AU
L12 20376 S "ZHANG D"?/AU
L13 370 S "WHIPPLE R"?/AU
L14 2 S L10 AND L11 AND L12 AND L13
L15 71 S L10 AND (L11 OR L12 OR L13)
L16 2 S L11 AND (L12 OR L13)
L17 6 S L12 AND L13
L18 29 S (L10 OR L11 OR L12 OR L13 OR L15) AND (L1 OR L5)
L19 31 S L14 OR L16 OR L17 OR L18
L20 20 DUP REM L19 (11 DUPLICATES REMOVED)

Author(s)

L20 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2004:162335 CAPLUS

DOCUMENT NUMBER: 140:212976

TITLE: Identification and cloning of Thermotoga maritima deoxyribonucleate nucleotidyltransferase III 8' subunit

INVENTOR(S): O'donnell, Michael E.; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; Bruck, Irina; Kuriyan, John

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 245 pp., Cont. of U.S. Ser. No.

Searcher : Shears 571-272-2528

10/048071

716,964.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004038290	A1	20040226	US 2003-671419	20030925
US 2004043414	A1	20040304	US 2003-670844	20030925
US 2004043415	A1	20040304	US 2003-671134	20030925
US 2004106137	A1	20040603	US 2003-670817	20030925
US 2004197796	A1	20041007	US 2003-671207	20030925
US 2004048309	A1	20040311	US 2003-673098	20030926
US 2004077012	A1	20040422	US 2003-672638	20030926
US 2004081995	A1	20040429	US 2003-673127	20030926
US 2004110210	A1	20040610	US 2003-673119	20030926
PRIORITY APPLN. INFO.:			US 1997-43202P	P 19970408
			US 1998-57416	B1 19980408
			US 2000-642218	A2 20000818
			US 2000-716964	A1 20001121

AB The present invention relates to identification and cloning of genes encoding DNA polymerase III subunits of thermophiles. In particular, it provides identification and cloning of DNA polymerase III δ 'subunit of *Thermotoga maritima* for use in PCR or primer extension.

L20 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2004:162334 CAPLUS

DOCUMENT NUMBER: 140:231417

TITLE: Identification and cloning of DNA polymerase III δ 'subunit of *Bacillus stearothermophilus*

INVENTOR(S): O'donnell, Michael E.; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; Bruck, Irina; Kuriyan, John

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 245 pp., Cont. of U.S. Ser. No. 716,964.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004038289	A1	20040226	US 2003-671403	20030925
US 2004043414	A1	20040304	US 2003-670844	20030925
US 2004043415	A1	20040304	US 2003-671134	20030925
US 2004106137	A1	20040603	US 2003-670817	20030925
US 2004197796	A1	20041007	US 2003-671207	20030925
US 2004048309	A1	20040311	US 2003-673098	20030926
US 2004077012	A1	20040422	US 2003-672638	20030926
US 2004081995	A1	20040429	US 2003-673127	20030926
US 2004110210	A1	20040610	US 2003-673119	20030926
PRIORITY APPLN. INFO.:			US 1997-43202P	P 19970408

Searcher : Shears 571-272-2528

10/048071

US 1998-57416 B1 19980408
US 2000-642218 A2 20000818
US 2000-716964 A1 20001121

AB The present invention relates to identification and cloning of genes encoding DNA polymerase III subunits of thermophiles. In particular, it provides identification and cloning of DNA polymerase III δ 'subunit of *Bacillus stearothermophilus* for use in PCR or primer extension.

L20 ANSWER 3 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:254270 USPATFULL

TITLE: Nucleic acid encoding bacillus stearothermophilus beta polymerase subunit

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-On-Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004197796	A1	20041007
APPLICATION INFO.:	US 2003-671207	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9518	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Searcher : Shears 571-272-2528

10/048071

L20 ANSWER 4 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:144546 USPATFULL
TITLE: Bacillus stearothermophilus SSB protein and use thereof
INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004110210	A1	20040610
APPLICATION INFO.:	US 2003-673119	A1	20030926 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9522	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 5 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:138964 USPATFULL
TITLE: Nucleic acid encoding bacillus stearothermophilus SSB
protein
INVENTOR(S): O'Donnell, Michael E., Hastings-on Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES

Searcher : Shears 571-272-2528

10/048071

Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004106137	A1	20040603
APPLICATION INFO.:	US 2003-670817	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9513	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 6 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:107595 USPATFULL

TITLE: Bacillus stearothermophilus beta polymerase subunit and use thereof

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, New York, NY, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

NUMBER	KIND	DATE
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Searcher : Shears 571-272-2528

10/048071

PATENT INFORMATION: US 2004081995 A1 20040429
APPLICATION INFO.: US 2003-673127 A1 20030926 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-716964, filed on 21
Nov 2000, PENDING Continuation-in-part of Ser. No. US
2000-642218, filed on 18 Aug 2000, PENDING Continuation
of Ser. No. US 1998-57416, filed on 8 Apr 1998,
ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9515	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 7 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:101150 USPATFULL

TITLE: Bacillus stearothermophilus polc polymerase subunit and use thereof

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004077012	A1	20040422
APPLICATION INFO.:	US 2003-672638	A1	20030926 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

Searcher : Shears 571-272-2528

10/048071

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9511	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 8 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:63791 USPATFULL

TITLE: Thermotoga maritima delta prime polymerase subunit and use thereof

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Riverdale, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004048309	A1	20040311
APPLICATION INFO.:	US 2003-673098	A1	20030926 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051,	

Searcher : Shears 571-272-2528

10/048071

Rochester, NY, 14603-1051
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 82 Drawing Page(s)
LINE COUNT: 8502

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 9 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:57413 USPATFULL

TITLE: Nucleic acid encoding aquifex aeolicus delta prime polymerase subunit

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043415	A1	20040304
APPLICATION INFO.:	US 2003-671134	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9517	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a

Searcher : Shears 571-272-2528

10/048071

thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 10 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2004:57412 USPATFULL

TITLE: Nucleic acid encoding bacillus stearothermophilus tau polymerase subunit

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on- Hudson,
NY, UNITED STATES
Yuzhakov, Alexander, Malden, MA, UNITED STATES
Yurieva, Olga, New York, NY, UNITED STATES
Jeruzalmi, David, Cambridge, MA, UNITED STATES
Bruck, Irina, New York, NY, UNITED STATES
Kuriyan, John, Berkeley, CA, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004043414	A1	20040304
APPLICATION INFO.:	US 2003-670844	A1	20030925 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 2000-716964, filed on 21 Nov 2000, PENDING Continuation-in-part of Ser. No. US 2000-642218, filed on 18 Aug 2000, PENDING Continuation of Ser. No. US 1998-57416, filed on 8 Apr 1998, ABANDONED		

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-43202P	19970408 (60)
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	Nixon Peabody LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051	
NUMBER OF CLAIMS:	9	
EXEMPLARY CLAIM:	1	
NUMBER OF DRAWINGS:	82 Drawing Page(s)	
LINE COUNT:	9513	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention relates to an isolated DNA molecule from a thermophilic bacterium which encodes a DNA polymerase III-type enzyme subunit. Also encompassed by the present invention are host cells and expression system including the heterologous DNA molecule of the present invention, as well as isolated replication enzyme subunits encoded by such DNA molecules. Also disclosed is a method of producing a recombinant thermostable DNA polymerase III-type enzyme, or subunit thereof, from a thermophilic bacterium, which is carried out by

Searcher : Shears 571-272-2528

10/048071

transforming a host cell with at least one heterologous DNA molecule of the present invention under conditions suitable for expression of the DNA polymerase III-type enzyme, or subunit thereof, and then isolating the DNA polymerase III-type enzyme, or subunit thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 11 OF 20 WPIDS COPYRIGHT 2005 THE THOMSON CORP on STN DUPLICATE 3
ACCESSION NUMBER: 2003-829557 [77] WPIDS
CROSS REFERENCE: 1999-590685 [50]
DOC. NO. CPI: C2003-233646
TITLE: New DNA replication proteins (i.e. subunits of the Staphylococcus aureus DNA polymerase III enzyme) and genes, useful in drug discovery to screen large libraries of chemicals for identification of compounds with antibiotic activity.
DERWENT CLASS: B04 D16
INVENTOR(S): O'DONNELL, M E; WHIPPLE, R; ZHANG, D
PATENT ASSIGNEE(S): (ODON-I) O'DONNELL M E; (WHIP-I) WHIPPLE R; (ZHAN-I) ZHANG D
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 2003129633	A1	20030710	(200377)*		69

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 2003129633	A1 Provisional	US 1998-74572P	19980213
	Provisional	US 1998-93727P	19980722
	Cont of	US 1999-235245	19990122
		US 2002-282287	20021028

PRIORITY APPLN. INFO: US 2002-282287 20021028; US
1998-74572P 19980213; US
1998-93727P 19980722; US
1999-235245 19990122

AN 2003-829557 [77] WPIDS

CR 1999-590685 [50]

AB US2003129633 A UPAB: 20031128

NOVELTY - An isolated polypeptide, which comprises at least one functionally active subunit of a Staphylococcus aureus DNA polymerase III enzyme, is new. The subunit comprises a 573 residue dnaE amino acid sequence, a 566 residue dnaX amino acid sequence and/or a 457 residue dnaB amino acid sequence, all given in the specification.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) isolated nucleic acid molecules encoding the novel subunit polypeptide or polypeptide sequence, where the nucleic acid is an isolated Staphylococcus DNA molecule encoding the dnaE, dnaX or dnaB protein or polypeptide;

(2) expression systems containing any of the DNA molecules of (1);

Searcher : Shears 571-272-2528

and

(3) host cells transformed with the DNA molecules of (1).

USE - The proteins and nucleic acids replicate the chromosome of Gram positive bacteria, and are useful in drug discovery to screen large libraries of chemicals for identification of compounds with antibiotic activity.

Dwg.0/11

L20 ANSWER 12 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2003:237815 USPATFULL

TITLE: Methods for amplifying and sequencing nucleic acid molecules using a three component polymerase

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003165972	A1	20030904
APPLICATION INFO.:	US 2003-395467	A1	20030321 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-325067, filed on 3 Jun 1999, GRANTED, Pat. No. US 6555349 Continuation-in-part of Ser. No. US 1997-828323, filed on 28 Mar 1997, ABANDONED Continuation of Ser. No. US 1994-279058, filed on 22 Jul 1994, GRANTED, Pat. No. US 5668004 Continuation-in-part of Ser. No. US 1992-826926, filed on 24 Jan 1992, ABANDONED Division of Ser. No. US 1996-696651, filed on 14 Aug 1996, ABANDONED Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, GRANTED, Pat. No. US 5583026		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Michael L. Goldman, NIXON PEABODY LLP, Clinton Square, P.O. Box 31051, Rochester, NY, 14603-1051		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	9 Drawing Page(s)		
LINE COUNT:	1544		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	The present invention is directed to a method for amplifying or sequencing a nucleic acid molecule with a three component polymerase.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 13 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2003:115737 USPATFULL

TITLE: Methods for amplifying and sequencing nucleic acid molecules using a three component polymerase

INVENTOR(S): **O'Donnell, Michael E.**, Hastings-on-Hudson, NY, United States

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)
The Rockefeller University, New York, NY, United States (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 6555349 B1 20030429
 APPLICATION INFO.: US 1999-325067 19990603 (9)
 RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-828323, filed on 28 Mar 1997 Continuation of Ser. No. US 1994-279058, filed on 22 Jul 1994, now patented, Pat. No. US 5668004 Continuation-in-part of Ser. No. US 1993-826926, filed on 22 Jan 1993, now abandoned Continuation-in-part of Ser. No. US 325067 Continuation-in-part of Ser. No. US 1999-282917, filed on 31 Mar 1999, now patented, Pat. No. US 6221642 Division of Ser. No. US 1996-696651, filed on 14 Aug 1996 Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, now patented, Pat. No. US 5583026

DOCUMENT TYPE: Utility
 FILE SEGMENT: GRANTED
 PRIMARY EXAMINER: Siew, Jeffrey
 LEGAL REPRESENTATIVE: Nixon Peabody LLP
 NUMBER OF CLAIMS: 42
 EXEMPLARY CLAIM: 1
 NUMBER OF DRAWINGS: 9 Drawing Figure(s); 9 Drawing Page(s)
 LINE COUNT: 1755
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention is directed to a method for amplifying or sequencing a nucleic acid molecule with a three component polymerase comprising a DNA polymerase component, a sliding clamp component, and a clamp loader component.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
 ACCESSION NUMBER: 2002:371330 CAPLUS
 DOCUMENT NUMBER: 137:274946
 TITLE: Analysis of a multicomponent thermostable DNA polymerase III replicase from an extreme thermophile
 AUTHOR(S): **Bruck, Irina**; Yuzhakov, Alexander; Yurieva, Olga; Jeruzalmi, David; Skangalis, Maija; Kuriyan, John; **O'Donnell, Mike**
 CORPORATE SOURCE: Howard Hughes Medical Institute, New York, NY, 10021, USA
 SOURCE: Journal of Biological Chemistry (2002), 277(19), 17334-17348
 CODEN: JBCHA3; ISSN: 0021-9258
 PUBLISHER: American Society for Biochemistry and Molecular Biology
 DOCUMENT TYPE: Journal
 LANGUAGE: English

AB This report takes a proteomic/genomic approach to characterize the DNA polymerase III replication apparatus of the extreme thermophile, *Aquifex aeolicus*. Genes (*dnaX*, *holA*, and *holB*) encoding the subunits required for clamp loading activity (τ , δ , and δ') were identified. The *dnaX* gene produces only the full-length product, τ , and therefore differs from *Escherichia coli* *dnaX* that produces two proteins (γ and τ). Nonetheless, the *A. aeolicus* proteins form a $\tau\delta\delta'$ complex. The *dnaN* gene encoding the β clamp was identified, and the $\tau\delta\delta'$ complex is active in loading β onto DNA. *A. aeolicus* contains one *dnaE* homolog, encoding the

α subunit of DNA polymerase III. Like *E. coli*, *A. aeolicus* α and τ interact, although the interaction is not as tight as the α - τ contact in *E. coli*. In addition, the *A. aeolicus* homolog to *dnaQ*, encoding the ϵ proofreading 3'-5'-exonuclease, interacts with α but does not form a stable α - ϵ complex, suggesting a need for a brace or bridging protein to tightly couple the polymerase and exonuclease in this system. Despite these differences to the *E. coli* system, the *A. aeolicus* proteins function to yield a robust replicase that retains significant activity at 90°. Similarities and differences between the *A. aeolicus* and *E. coli* pol III systems are discussed, as is application of thermostable pol III to biotechnol.

REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5

ACCESSION NUMBER: 2001:101168 CAPLUS
 DOCUMENT NUMBER: 134:143863
 TITLE: DNA replication proteins of Gram-positive bacteria and their use to screen for chemical inhibitors
 INVENTOR(S): O'donnell, Michael E.; Bruck, Irina; Zhang, Dan; Whipple, Richard
 PATENT ASSIGNEE(S): The Rockefeller University, USA
 SOURCE: PCT Int. Appl., 238 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001009164	A2	20010208	WO 2000-US20666	20000728
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000067499	A5	20010219	AU 2000-67499	20000728
US 2003129633	A1	20030710	US 2002-282287	20021028
PRIORITY APPLN. INFO.:			US 1999-235245	A 19990122
			US 1999-146178P	P 19990729
			US 1998-74522P	P 19980127
			US 1998-93727P	P 19980722
			WO 2000-US20666	W 20000728

AB The present invention relates to α -large, α -small, δ , δ' , τ , β , SSB, DnaG, and DnaB and (polC, dnaE, holoA, holoB, dnaX, **dnaN**, ssb, dnaG, dnaB) genes encoding them from Gram pos. bacteria, preferably *Streptococcus pyogenes* and *Staphylococcus aureus*. The individual genes and proteins or polypeptides are useful in identification of compds. with antibiotic activity. Thus, the structure and mechanism of the chromosomal replicase of *S. pyogenes* and *S. aureus* have been elucidated. These DNA polymerases use a sliding clamp (the **dnaN**-encoded β subunit) and clamp loader (the dnaX-encoded

τ subunit). The clamp and clamp loader components of Gram-neg. cells could be exchanged for those of Gram-pos. cells.

L20 ANSWER 16 OF 20 USPATFULL on STN

ACCESSION NUMBER: 2001:59664 USPATFULL
 TITLE: Process for reconstituting the polymerase III* and other subassemblies of E. coli DNA polymerase III holoenzyme from peptide subunits
 INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, United States
 PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6221642	B1	20010424
APPLICATION INFO.:	US 1999-282917		19990331 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1996-696651, filed on 14 Aug 1996, now abandoned Continuation of Ser. No. US 1994-298945, filed on 31 Aug 1994, now patented, Pat. No. US 5583026		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Weber, Jon P.		
LEGAL REPRESENTATIVE:	Nixon Peabody LLP		
NUMBER OF CLAIMS:	7		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	29 Drawing Figure(s); 14 Drawing Page(s)		
LINE COUNT:	1890		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The process of the invention provides for the reconstitution of the polymerase III* subassembly, Pol III*, of E. coli DNA polymerase III holoenzyme from substantially pure peptide subunits. In the first of two general schemes in which the subunits are added in a specified order, γ and τ are premixed before addition of δ and δ' . In the second general scheme, δ' is first assembled onto γ (or τ); then the excess δ' is removed before adding τ (or γ), following which δ is added. Reconstituted Pol III* had the same subunit composition as purified natural Pol III*, as well as similar activity. Other smaller subassemblies of the polymerase III holoenzyme may also be reconstituted by the process of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6

ACCESSION NUMBER: 1999:673058 CAPLUS
 DOCUMENT NUMBER: 131:319658
 TITLE: DNA polymerase holoenzyme III derived from thermophilic organisms that functions as a chromosomal replicase, and the genes encoding its subunits
 INVENTOR(S): Yurieva, Olga; Kuriyan, John; O'Donnell, Michael E.; Jeruzalmi, David
 PATENT ASSIGNEE(S): The Rockefeller University, USA
 SOURCE: PCT Int. Appl., 156 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent

10/048071

LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9953074	A1	19991021	WO 1998-US7070	19980409
W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9871057	A1	19991101	AU 1998-71057	19980409
PRIORITY APPLN. INFO.:			WO 1998-US7070	A 19980409
AB A DNA Polymerase has been identified in a thermophile that functions as a chromosomal replicase. The specific enzyme is a holoenzyme III that has been identified in <i>Thermus thermophilus</i> , and corresponds to Polymerase III in <i>Escherichia coli</i> . The genes and the polypeptides corresponding to T. <i>thermophilus</i> γ , τ , ϵ , α , and β subunits that they encode are disclosed, as are probes, vectors, methods of preparation and the methods of use. The enzymes of the present invention and their components are particularly well suited for use in procedures for the preparation of DNA, such as PCR, because of the speed and accuracy that they are able to achieve.				
REFERENCE COUNT: 1		THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L20 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
 ACCESSION NUMBER: 1999:487306 CAPLUS
 DOCUMENT NUMBER: 131:113137
 TITLE: DNA replication proteins of gram positive bacteria and their use to screen for chemical inhibitors
 INVENTOR(S): O'Donnell, Michael E.; Zhang, Dan; Whipple, Richard
 PATENT ASSIGNEE(S): The Rockefeller University, USA
 SOURCE: PCT Int. Appl., 132 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9937661	A1	19990729	WO 1999-US1547	19990125
W: AU, CA, JP, MX				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
CA 2318574	AA	19990729	CA 1999-2318574	19990125
AU 9923416	A1	19990809	AU 1999-23416	19990125
EP 1056763	A1	20001206	EP 1999-903377	19990125
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				

Searcher : Shears 571-272-2528

10/048071

US 2003129633 A1 20030710 US 2002-282287 20021028
 PRIORITY APPLN. INFO.: US 1998-74522P P 19980127
 US 1998-93727P P 19980722
 US 1999-235245 B1 19990122
 WO 1999-US1547 W 19990125

AB The duplex DNA of chromosomes is replicated in a multicomponent process. A helicase unwinds the DNA, a replicase synthesizes new DNA, and primase repeatedly synthesizes new primed starts on the lagging strand. The present invention is directed to the genes from gram-pos. bacterium encoding these proteins, and their characterization. Gene sequences are provided for the dnaE (α -subunit), dnaX (gamma/tau subunit), dnaB (helicase), polC (DNA polymerase III-L), **dnaN** (β -subunit), and dnaG (primase) genes from Staphylococcus aureus. The invention detcs. that the replicase of Staphylococcus operates as a 3-component system in which a clamp loader enzyme assembles a sliding clamp protein onto DNA. The sliding clamp then binds the DNA polymerase III holoenzyme making it highly efficient. The invention identifies two DNA polymerase III enzymes in gram-pos. bacterium, each of which operate with the clamp and clamp loader, to extend a single primed site around a long (>5 kb) single-stranded DNA template. These replication proteins can be utilized in a variety of assays to screen chemical compound libraries for an antibiotic compound

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L20 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 8
 ACCESSION NUMBER: 1998:682540 CAPLUS
 DOCUMENT NUMBER: 129:299056
 TITLE: A DNA polymerase III homolog of the thermophilic bacterium Thermus thermophilus involved in chromosomal replication
 INVENTOR(S): Yurieva, Olga; Kuriyan, John; O'donnell, Michael E.; Jeruzalmi, David
 PATENT ASSIGNEE(S): The Rockefeller University, USA
 SOURCE: PCT Int. Appl., 154 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9845452	A2	19981015	WO 1998-US6921	19980408
WO 9845452	A3	19981217		
W:	AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GW, HU, ID, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, SL, TR, TT, UA, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
AU 9876839	A1	19981030	AU 1998-76839	19980408
EP 983365	A1	20000308	EP 1998-924742	19980408
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,			

Searcher : Shears 571-272-2528

10/048071

IE, FI

PRIORITY APPLN. INFO.:

US 1997-823407

A 19970408

WO 1998-US6921

W 19980408

AB A DNA polymerase holoenzyme III identified in *Thermus thermophilus* and that corresponds to DNA polymerase III of *Escherichia coli* is described for use in primer-mediated amplification of DNA. In particular, the clamp structure of DNA polymerase III can be used to extend a primer over a long stretch of single-stranded DNA. The enzyme may be obtained from a range of known thermophilic microorganisms. Genes for five subunits (α , β , γ , ϵ , and τ) of the *T. thermophilus* holoenzyme are cloned and expressed. The enzyme is particularly well suited for use in procedures for the preparation of DNA, such as PCR, because of the speed

and

accuracy that they are able to achieve. The *dnaX* gene of *T. thermophilus* was cloned using PCR with primers derived from conserved sequences of other known *dnaX* genes to generate a probe to screen an *XbaI* bank. The γ and τ subunits encoded by the *dnaX* gene were manufactured in *Escherichia coli* using the the pET expression system and shown to have an ATPase activity. The two subunits were synthesized from a single gene by efficient ribosomal frameshifting. Conserved sequence-derived primers were used to clone fragments of the other genes for subunits of the enzyme and these were extended to obtain full-length sequences by standard methods.

L20 ANSWER 20 OF 20 USPATFULL on STN

ACCESSION NUMBER: 96:113822 USPATFULL

TITLE: Process for reconstituting the polymerase III* and other subassemblies of *E. coli* DNA polymerase III holoenzyme from peptide subunits

INVENTOR(S): O'Donnell, Michael E., Hastings-on-Hudson, NY, United States

PATENT ASSIGNEE(S): Cornell Research Foundation, Inc., Ithaca, NY, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5583026		19961210
APPLICATION INFO.:	US 1994-298945		19940831 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wityshyn, Michael G.		
ASSISTANT EXAMINER:	Weber, Jon P.		
LEGAL REPRESENTATIVE:	Nixon, Hargrave, Devans & Doyle		
NUMBER OF CLAIMS:	53		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	29 Drawing Figure(s); 12 Drawing Page(s)		
LINE COUNT:	2275		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The process of the invention provides for the reconstitution of the polymerase III* subassembly, Pol III*, of *E. coli* DNA polymerase III holoenzyme from substantially pure peptide subunits. In the first of two general schemes in which the subunits are added in a specified order, γ and τ are premixed before addition of δ and δ' . In the second general scheme, δ' is first assembled onto γ (or τ); then the excess δ' is removed before adding τ (or γ), following which δ is added. Reconstituted Pol III* had the same subunit composition as purified natural Pol III*, as well as

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similar activity. Other smaller subassemblies of the polymerase III holoenzyme may also be reconstituted by the process of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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